MobileNet: a new way for Soldiers to communicate with family

By the SSC Charleston European Office

Engineers in the Space and Naval Warfare Systems Center (SSC) Charleston European Office jumped at the chance to give Soldiers a little normalcy by way of access to a mobile cybercafé to maintain vital communication links with family and friends and the *Stars and Stripes* e-newspaper. They did this by designing and building a prototype of an Internet café that is mobile and easy to deploy. They called it: MobileNet.

The idea was to create a cybercafé to support joint warfighters deployed to the most remote locations around the world. MobileNet offers the Internet, webcams and voice-over-IP telephones via satellite technology. Although there are many similar technologies available to deployed Soldiers, none have the portability and ease-of-use that MobileNet offers.

The name "MobileNet" derives from the need to make the integrated solution mobile and to have networking built into the container. The prototype was designed and built under the direction of Ken McCullough, who was the program manager of the Internet cafés deployed to the Balkans when the idea of MobileNet began to take form. (McCullough now works in the SSC Charleston Intelligence and Electronic Warfare Division.)

The European Office has a long history of communications projects for Morale, Welfare and Recreation (MWR) in support of the U.S. Army Europe (USAREUR) Deputy Chief of Staff - G1, and is currently managing projects throughout the European theater in support of MWR and the joint warfighter.

The prototype conception to completion occurred in less than six months. The original prototype is still in use and operating in Romania in support of U.S. troops stationed there.

The prototype was extensively field tested in Europe over the last several years in support of joint warfighter exercises in Bulgaria and Romania.
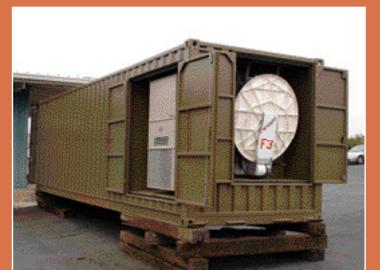
The first production-ready prototypes were completed in spring 2006, and are currently deployed to the Operation Iraqi Freedom and Operation Enduring Freedom theaters. The initial order for MobileNet units was four with two already in use and the remaining two en route to theater locations.

One of the main goals was to design this system with simplicity. Total integration and a complete package was a desired outcome for the customer, but also something that would require less technical support. That is why a fully automated satellite communications system was chosen.

MobileNet can be operated by anyone with general computer knowledge, thus reducing setup time and the need for expert satellite technicians on-site. Once the system is set in place and has power, the startup time is less than 15 minutes to bring up the capabilities of the entire cybercafé.

MobileNet can be built for about $330,000, which does not include monthly satellite time costs.

Future MobileNet projects will improve return on investment, customer expectations and available options to an already great track record of designing leading edge communication solutions — and it is another example of how SSC Charleston supports the joint warfighter. The MobileNet option gives customers the proper tools to support the global war on terror with communication packages that have little to no burden on the facilities or commanders wherever MobileNet is located. **CHIPS**

MobileNet fits easily into a 30'x8'x8'6" shipping container.

MobileNet Snapshot

*   Equipment fits in a 30'x8'x8'6" shipping container
*   Certified to transport via C-130, C-17 or C-5 aircraft
*   Built-in transformer for U.S. or European power supply
*   Environmental control is maintained by a two-ton HVAC unit
*   12 workstations with 12 VOIP telephones optional
*   Floors are covered with Rhino Liner, which resists scuffs, stains and dirt
*   Walls are entirely covered with white dry-erase material for notes

*   Uninterruptible power supply (UPS) for control room equipment
*   Server rack provides ample space for the UPS, satellite modem, satellite dish controller, router, laptop and *laser printer
*   Chairs are traditional "bowling alley" chairs that are bolted down for stability and dual seating configuration
*   Computers are stored in overhead bins to reduce dust and dirt and strengthen security
*   Monitors use two USB ports for Soldiers to upload or download pictures to and from family members
*   Lexan covers protect monitors and webcams
*   Stainless steel kiosk keyboards that resist dust, dirt and liquid spills
*   Gun racks

Optional equipment includes:

*   Plasma television for Armed Forces Network (AFN) broadcast
*   LCD television mounted at entry point for X-box or PlayStation gaming area
*   Exterior design can include custom-made designs or logos at customer's request

The configuration of MobileNet can be modified to fit any customer's needs with minimal effort and design time. The current turnaround time for a unit to be delivered is 12 weeks.

A laser printer for Stars and Stripes reduces MWR's shipping costs for hard copy distribution of the newspaper.